

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: HAGELIN et al. Confirmation No.: To be assigned
Serial No.: To be assigned Art Unit: 2872
Filed: July 25, 2003 Examiner: James Phan
For: Apparatus and Method for Optical Attorney Docket No.: 9785-0008-999
Raster-Scanning in a
Micromechanical System

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the application.

1. Enclosures accompanying this Information Disclosure Statement are:
 - 1a. ☒ A list of all patents, publications, applications, or other information submitted for consideration by the office.
 - 1b. A legible copy of :
 - ☐ Each U.S. patent application publication and U.S. and foreign patent;
 - ☐ Each publication or that portion which caused it to be listed on the PTO-1449;
 - ☐ For each cited pending U.S. application, the application specification including the claims, and any drawing of the application, or portion of the application which caused it to be listed on the PTO-1449 including any claims directed to that portion;
 - ☐ all other information or portion which caused it to be listed on the PTO-1449.
 - 1c. ☐ An English language copy of search report(s) from a counterpart foreign application or PCT International Search Report.
 - 1d. ☐ Explanations of relevancy (ATTACHMENT 1(d), hereto) or English language abstracts of the non-English language publications.
2. ☒ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(b):
 - ☐ Within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
 - ☐ Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;

- ☒ Before the mailing of the first Office action on the merits;
- ☐ Before the mailing of a first Office action after the filing of a request for continued examination under §1.114.

3. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(c) after the period specified in 37 C.F.R. §1.97(b), but before the mailing date of any of a final action under 37 C.F.R. §1.113, a notice of allowance under 37 C.F.R. §1.311 or an action that otherwise closes prosecution in the application.

(Check either Item 3a or 3b)

- 3a. ☐ The Certification Statement in Item 5 below is applicable. Accordingly, no fee is required.
- 3b. ☐ The \$180.00 fee set forth in 37 C.F.R. §1.17(p) in accordance with 37 C.F.R. §1.97(c) is:
☐ enclosed
☐ to be charged to Pennie & Edmonds LLP Deposit Account No. 16-1150.

(Item 3b to be checked if any reference known for more than 3 months)

4. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(d) after the period specified in 37 C.F.R. §1.97(c), but on or before the date of payment of the issue fee.

The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:

- ☐ enclosed.
☐ to be charged to Pennie & Edmonds LLP Deposit Account No. 16-1150.

The Certification Statement in Item 5 below is applicable.

5. ☐ Certification Statement (applicable if Item 3a or Item 4 is checked)

(Check either Item 5a or 5b)

- 5a. ☐ In accordance with 37 C.F.R. §1.97(e)(1), it is certified that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- 5b. ☐ In accordance with 37 C.F.R. §1.97(e)(2), it is certified that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was known by any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
6. ☒ This application is a continuation application under 37 C.F.R. §1.60 or §1.53(b) or (d).

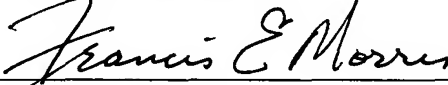
(Check appropriate Items 6a, 6b and/or 6c)

- 6a. ☐ A Petition to Withdraw from issue under 37 C.F.R. §1.313(b)(5) is concurrently filed herewith.

- 6b. ☒ Copies of publications listed on Form PTO-1449 from prior application Serial No. 10/052,148, filed on January 16, 2002, of which this application claims priority under 35 U.S.C. §120, are not being submitted pursuant to 37 C.F.R. §1.98(d).
- 6c. ☐ Copies of the publications listed on Form PTO-1449 were not previously cited in prior application Serial No. , filed on , and are provided herewith.
7. ☐ This is a Supplemental Information Disclosure Statement. (Check Item 7a)
- 7a. ☐ This Supplemental Information Disclosure Statement under 37 C.F.R. §1.97(f) supplements the Information Disclosure Statement filed on . A bona fide attempt was made to comply with 37 C.F.R. §1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental Information Disclosure Statement can be considered as if properly filed on .
8. ☐ In accordance with 37 C.F.R. §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:
- (Check Item 8a, 8b, or 8c)
- 8a. ☐ satisfied because all non-English language publications were cited on the enclosed English language copy of the PCT International Search Report or the search report from a counterpart foreign application indicating the degree of relevance found by the foreign office.
- 8b. ☐ set forth in the application.
- 8c. ☐ enclosed as an attachment hereto.
9. ☒ The Commissioner is authorized to charge any additional fee required or credit any overpayment for this Information Disclosure Statement and/or Petition to Pennie & Edmonds LLP Deposit Account No. 16-1150.
10. ☒ No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than a search report of a foreign counterpart application or PCT International Search Report if submitted herewith). 37 C.F.R. §§1.97(g) and (h).

Respectfully submitted,

Date: July 25, 2003


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LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO.	9875-0008-999	APPLICATION NO.	To be assigned
	APPLICANT			
	Hagelin et al.			
	FILING DATE	July 25, 2003	GROUP	2872

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,867,297	2/1999	Kiang et al.			
	5,629,790	5/1997	Neukermans et al.			
	5,408,352	4/1995	Peng			
	4,317,611	3/1982	Peterson			
	5,361,158	11/1994	Tang			
	5,998,906	12/1999	Jerman et al.	310		

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Daneman et al., "Integrated Laser-to-Fiber Coupling Module Using a Micromachined Alignment Mirror", <i>Conference on Lasers and Electro-Optics</i> , 1995, Technical Digest Series, Vol. 15, pp.245-250, Baltimore, MD, May 1995.
	Daneman et al., "Linear Microvibromotor for Positioning Optical Components", <i>J of Microelectromechanical Systems</i> , 5(3):159-165 (1996).
	Daneman et al., "Linear Vibromotor-Actuated Micromachined Microreflector for Integrated Optical Systems", <i>Solid-State Sensor and Actuator Workshop</i> , Hilton Head, SC, June 2-6 1996.
	Deng et al., "The Development of Polysilicon Micromotors for Optical Scanning Applications", <i>Solid-State Sensor and Actuator Workshop</i> , pp. 234-238, Hilton Head, SC, June 13-16, 1994.
	Kiang et al., "Electrostatic Combdrive-Actuated Micromirrors for Laser-Beam Scanning and Positioning", <i>J of Microelectromechanical Systems</i> , 7(1):27-37, March 1998.
	Kiang et al., "High-Precision Si-Micromachined Micromirrors with On-Chip Actuation for External-Cavity Semiconductor Lasers", <i>Conference on Lasers and Electro-Optics</i> , Technical Digest Series, Vol. 15, pp. 248-249, Baltimore, MD, May 1995.
	Kiang et al., "Micromachined Polysilicon Microscanners for Barcode Readers", <i>IEEE Photonics Technology Letters</i> , 8(12):1707-1709, December 1996.
	Kiang et al., "Silicon-Micromachined Micromirrors with Integrated High-Precision Actuators for External-Cavity Semiconductor Lasers", <i>IEEE Photonics Technology Letters</i> , 8(1):95-97 (1996).
	Pister et al., "Microfabricated Hinges", <i>Sensors and Actuators</i> , 33(3):249-256 (1992).
	Solgaard, O., "High-Resolution Silicon Surface Micromachined Displays", (invited talk), <i>Technical Digest of the IEEE/LEOS IEEE/SAMS 1997 International Conference on Optial MEMS and their Applications (MOEMS97)</i> , pp. 9-14, Nara, Japan, November 18-21, 1997.
	Solgaard et al., "Optoelectronic Packaging Using Silicon Surface-Micromachined Alignment Mirrors", <i>IEEE Photonics Technology Letters</i> , 7(1):41-43 (1995).
	Solgaard et al., "Precision and Performance of Polysilicon Micromirrors for Hybrid Integrated Optics", <i>SPIE, Symposium on Lasers and Applications</i> , San Jose, CA, February 1995.
	Tien et al., "Surface-Micromachined Mirrors for Laser-Beam Positioning", <i>Sensors and Actuators, A</i> 52:76-80 (1996).
	Tsufura et al., "Barcode Scanning On-Going Evolution & Development", <i>Lasers & Optonics</i> , July 1995.

		Yasseen et al., "Diffraction Grating Scanners Using Polysilicon Micromotors", <i>Proceedings IEEE Micro Electro Mechanical Systems</i> , pp. 175-180, Amsterdam, The Netherlands, January 1995.
		Lin et al. "Free-Space Micromachined Optical Switches with Submillisecond Switching Time for Large-Scale Optical Crossconnects" <i>IEEE Photonics Technology Letters</i> , Vol. 10, No. 4, April 1998, pp 525-527.
EXAMINER		DATE CONSIDERED
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>		